

CLAIMS:

1       1. A method of authenticating a user agent to a  
2 server using SIP (Session Initiation Protocol) messages,  
3 the method comprising:

4               forwarding an SIP request from the user agent to  
5 the server;

6               forwarding a request for authentication from the  
7 server to the user agent in response to the SIP request,  
8 the request for authentication including information that  
9 the authentication will be performed using a UMTS  
10 (Universal Mobile Telecommunications System) AKA  
11 (Authentication and Key Agreement) mechanism;

12               forwarding an authentication response from the  
13 user agent to the server in response to the request for  
14 authentication in accordance with the UMTS AKA mechanism;  
15 and

16               performing an invoked SIP procedure on the server  
17 in response to the SIP request if the authentication is  
18 deemed successful in view of the authentication response.

1       2. The method of claim 1, the SIP request comprising  
2 one of an SIP INVITE request or an SIP REGISTER request.

1       3. The method of claim 1, the request for  
2 authentication comprising one of an SIP 401 Unauthorized  
3 code or an SIP 407 Proxy Authentication Required code.

4. The method of claim 3, the request for authentication comprising UMTS AKA RAND (RANDOM challenge) and AUTN (authentication token) vectors.

5. The method of claim 4, the RAND and AUTN factors being included in an SIP WWW-Authenticate or Proxy-Authenticate response header field.

6. The method of claim 1, the authentication response comprising one of a UMTS AKA RES (response) code or an AUTS (synchronization failure parameter) code or an error code.

7. The method of claim 6, the authentication response being included in an SIP Authorization or Proxy-Authorization header field.

8. The method of claim 1, the invoked procedure comprising an acknowledgement response comprising an SIP 200 code.

9. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method of authenticating a user agent to a server using SIP messages, the method comprising:

forwarding an SIP request from the user agent to the server;

8 forwarding a request for authentication from the  
9 server to the user agent in response to the SIP request,  
10 the request for authentication including information that  
11 the authentication will be performed using a UMTS  
12 (Universal Mobile Telecommunications System) AKA  
13 (Authentication and Key Agreement) mechanism;

14 forwarding an authentication response from the  
15 user agent to the server in response to the request for  
16 authentication in accordance with the UMTS AKA mechanism;  
17 and

18 performing an invoked SIP procedure on the server  
19 in response to the SIP request if the authentication is  
20 deemed successful in view of the authentication response.

21 10. The storage device of claim 9, the SIP request  
22 comprising one of an SIP INVITE request or an SIP REGISTER  
23 request.

24 11. The storage device of claim 9, the request for  
25 authentication comprising one of an SIP 401 Unauthorized  
26 code or an SIP 407 Proxy Authentication Required code.

27 12. The storage device of claim 11, the request for  
28 authentication comprising UMTS AKA RAND (RANDOM challenge)  
29 and AUTN (authentication token) vectors.

1 13. The storage device of claim 12, the RAND and  
2 AUTN factors being included in an SIP WWW-Authenticate or  
3 Proxy-Authenticate response header field.

1 14. The storage device of claim 9, the authentication  
2 response comprising one of a UMTS AKA RES (response) code  
3 or an AUTS (synchronization failure parameter) code or an  
4 error code.

1 15. The storage device of claim 14, the  
2 authentication response being included in an SIP  
3 Authorization or Proxy-Authorization header field.

1 16. The storage device of claim 9, the invoked  
2 procedure comprising an acknowledgement response comprising  
3 an SIP 200 code.